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INDUSTRY ASSOCIATION

January 24, 1995

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

William F. Caton, Acting Secretary  
Federal Communications Commission  
1919 M. Street, N.W., Rm 222  
Washington, DC 20554

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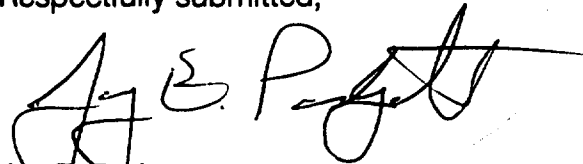
Re: ET Docket 93-235, ex parte  
Additional Frequencies for Cordless Telephones

Dear Mr. Caton:

The attached letter summarizes the position of the Telecommunications Industry Association (TIA) Consumer Radio Section regarding the proposed additional frequencies near 44 and 49 MHz for cordless telephones. Please associate this material with the record of the above-referenced proceeding.

If there are any questions regarding this matter, please contact the undersigned.

Respectfully submitted,



Jay E. Padgett  
Chairman, Consumer Radio Section  
Telecommunications Industry Association

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Re: ET Docket 93-235, ex parte  
Additional Frequencies for Cordless Telephones

Chairman Reed E. Hundt:  
Commissioner James H. Quello:  
Commissioner Andrew C. Barrett:  
Commissioner Susan Ness:  
Commissioner Rachel B. Chong:

This is to bring to your attention the severe shortage of frequencies for cordless telephones operating near 49 MHz, and to request that you take immediate action to correct this problem. Recognizing the importance of this issue to the American consumer, we have made repeated attempts over the last ten years to work with the Commission to remedy this situation. Unfortunately, despite our efforts and the obvious public interest associated with this issue, it has received inadequate support from the Commission and has been consistently preempted in favor of other priorities.

Our group, the Telecommunications Industry Association (TIA) Consumer Radio Section (formerly the Personal Communications Section), represents the cordless telephone industry in the U.S. We have been aware for many years of the increasing popularity of cordless telephones, and of the corresponding need for an adequate number of channels.

The instant proceeding, ET Docket 93-235, was initiated when we filed a Petition for Rule Making in August 1992, requesting an additional 15 frequency pairs near 44 and 49 MHz, to be shared with the Private Land Mobile Radio Service (PLMRS) on a secondary basis under Part 15. Prior to filing our Petition, we had consulted with the Office of Engineering and Technology (OET) and the Private Radio Bureau (PRB), at their invitation, who had identified the frequencies listed in our Petition as being suitable for cordless telephones. In response to our Petition, a Notice of Proposed Rule Making (NPRM) was adopted by the Commission in August 1993. Comments and Reply Comments were filed in December 1993.

As detailed below, the record of this proceeding shows that there have been no valid objections to the proposed authorization of the new frequencies on the basis of interference. We conclude that there is no reason for further delaying action in this



proceeding, except that it does not seem to be viewed as a high priority by this Commission. For reasons discussed below, we disagree with that view, and believe that action in this proceeding is overdue and that the public interest suffers as a result.

### **OBJECTIONS TO THE NPRM**

The only substantive objections raised in the Comments were (1) the potential for interference between cordless telephones using the proposed frequencies and PLRMS operations, and (2) the potential for interference from cordless telephone base units (which would transmit in the 44 MHz band) to the intermediate frequency (IF) of television sets. The PLMRS interests which raised the first issue in their Comments provided no quantitative support for their contentions that interference would occur. Rather, they simply argued that cordless telephones should not be allowed to use the frequencies based on the presumption that there would be interference. We addressed this issue in detail in our Reply Comments and demonstrated quantitatively that interference is not a valid concern.

Although we also addressed the TV interference issue in our Reply Comments, Zenith Electronics Corporation ("Zenith") included new data in its Reply Comments and reiterated the concerns expressed in its Comments regarding interference to TV sets. In addition, Sony Electronics, Inc. ("Sony"), which is one of our members and a manufacturer of both cordless telephones and TV sets, stated in its Reply Comments that an additional 60 days would be required to evaluate the potential for interference from the proposed 44 MHz cordless transmissions to a proposed new TV cable decoder interface. In February 1994, Sony filed Supplementary Reply Comments stating that it had determined that there would not be significant interference and the proposal conveyed in the NPRM should be adopted. In March, 1994, we filed an ex parte letter addressing Zenith's data and demonstrating that a cordless base unit would need to be within about two feet of a TV set to cause interference.

### **THE NEED FOR THE ADDITIONAL FREQUENCIES**

Currently, there are roughly 60 million cordless telephones in use in the U.S., with total sales of about 15 million units per year. The great majority of these units operate on the existing ten frequency pairs near 46/49 MHz. In high-density areas (e.g., apartment buildings), the ten available channels have already become saturated. This problem manifests itself to consumers as "blocking" (the inability of a multi-channel unit to find a clear channel), "crosstalk" (audible interference from a nearby unit on the same frequencies), and noise. This is evidenced by the relatively high return rate of cordless telephones compared to other consumer electronics products. Based on a recent survey of manufacturers by the EIA/CEG (Electronic Industries Association Consumer Electronics Group) Marketing Services department, cordless telephones have the highest return rate of all consumer electronics products. In fact, return rates for cordless phones are nearly three times the consumer electronics industry's average return rate for all products, excluding home

computers and video games. Thus, American consumers are being disadvantaged by the inaction of the Commission.

It has been argued by some during the course of the recently-concluded Personal Communications Services (PCS) proceeding, as well as in connection with the instant proceeding, that the allocation of additional channels near 49 MHz for cordless telephones has been rendered unnecessary by the availability of the "unlicensed PCS" band at 1910-1930 MHz, as well as the provisions for unlicensed operation in the Industrial, Scientific, and Medical (ISM) bands under Sections 15.247 and 15.249 of the Commission's Rules. However, we agree with the premise of the NPRM that this is not the case, because 49 MHz cordless telephones fill a well-defined public need in a unique way. While it is clear to us that the 902-928 MHz ISM band in particular will play an important role in the future development of the U.S. cordless telephone market, products operating in that band are clearly differentiated from those at 49 MHz by both price and performance. Initially, products in the 902-928 MHz band will serve primarily business customers and upscale consumers. With time, the costs of ISM products will drop and the market will grow, but the 49 MHz units will continue to provide affordable cordless telephone service for the majority of consumers, including the disabled, as well as elderly people living on fixed incomes.

The recently-allocated unlicensed PCS band near 1.9 GHz is even less likely than the 902-928 MHz band to offer a satisfactory substitute for additional cordless telephone channels near 49 MHz. Component costs are higher at 2 GHz than at 900 MHz,<sup>1</sup> and there would be the additional issue of financing the spectrum clearing. Moreover, compliance with the spectral "etiquette" in the new Subpart D of Part 15 would introduce additional complexity into the devices. While the unlicensed PCS spectrum and the associated Rules are essential ingredients of the Commission's overall plan for wireless personal communications, they are likely to be applied predominantly to wireless business systems for the foreseeable future.

#### **SUMMARY**

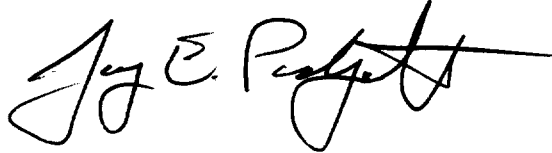
It is evident from review of the record of ET Docket 93-235 that the interference concerns raised by several parties in their Comments on the NPRM have been resolved, and there is no reason to further delay this proceeding. The authorization of additional frequencies for cordless telephones is clearly in the public interest and is in fact long overdue. The "cost" of bringing this proceeding to conclusion, in terms of the Commission resources required, should be relatively small, while the benefits to the American public are large.

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<sup>1</sup> We realize that with the advent of PCS near 2 GHz, volume will begin to drive down 2 GHz component costs, but this will occur gradually over a period of time.

We therefore request that you immediately make staff resources available to prepare a Report and Order for your expeditious review and approval.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jay E. Padgett", with a long horizontal flourish extending to the right.

Jay E. Padgett  
Chairman, TIA Consumer Radio Section

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